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# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

April 12, 2011

Rick Havenstrite  
Desert Hawk Gold Corporation  
1290 Holcomb Ave.  
Reno, Nevada 89502

Subject: Completeness Review of Third Submittal, Desert Hawk Gold Corporation, Kiewit Project Mine, M/045/0078, Tooele County, Utah

Dear Mr. Havenstrite:

The Division of Oil, Gas and Mining (DOGM) has done a "completeness review" of your submittal which was received February 22, 2011. On November 24, 2010, the second review comments were sent to Desert Hawk Gold Corporation with a list of four items that would be required for the third submittal. The letter said additional items might be needed for the completeness review. The following items have not been received. Referenced comment numbers are from the November 24, 2010, review.

1. Results of a cultural resources survey with recommendations. (UCA 9-8-404 and R647-4-109)
2. It appears the mine would overlap with the Herat mine (S/045/0023) in the Clifton Shears area and with the Kiewit exploration project (E/045/0140). This creates several conflicts between operators, and the Division cannot allow overlapping permit areas. This problem could be resolved, A. by having the permits transferred to Desert Hawk, B. with cooperative agreements signed by the operators of the Herat mine (Clifton Mining Company, Keith Moeller) and the Kiewit exploration project (Dumont Nickel) allowing operations by Desert Hawk within their disturbed areas, or, C. if Clifton Mining and Dumont Nickel were to withdraw their NOIs. The Division would not be able to approve the withdrawal until any disturbed areas were included within a permitted area for the Kiewit large mine notice.
3. Please clarify the heap closure plan. The reclamation cost estimate has a figure of \$150.00 per day for 765 days over three years to rinse the heap ("apply fresh water" according to the bond spreadsheet) and to evaporate the water. Please provide more detail and justification for this number, such as fuel costs, generators, backup systems, personnel, travel costs, maintenance and repairs, evaporators and piping, etc. The text of the plan does not discuss rinsing the heap; the text and the bond calculation need to be consistent. (R647-4-110.4)
4. For whatever method is used to close the heap facility, please provide a demonstration that the quality of any water to be discharged, whether during or following operations, will not exceed the standards in the attached table. The plan indicates about four to five gallons of water per minute will continue to be discharged from the heap facility indefinitely, and





Page 2 of 2  
Rick Havenstrite  
M/045/0078  
April 12, 2011

plan needs to show that this water will meet the required standards. This necessitates a post-mining water monitoring plan, and the reclamation cost estimate needs to include this plan. (R647-4-109.1 and R647-4-110.4)

In addition to these items, the Division is concerned whether it will be possible to reestablish vegetation on the leach facility under the current reclamation plan. If the heap is not rinsed, the pH of the remaining material is likely to be very high, about 9-10. The plan is to place one foot of soil over this material. Plant roots will not penetrate into the lower layer with such a high pH which leaves relatively little soil in which plants can grow.

Several other comments were included in the November 24, 2010, and the responses to these items will not be reviewed until the above listed items have been submitted.

As discussed on February 10, 2011, the Kiewit ore body will not be mined until approval has been received from the Bureau of Land Management. Please provide a written legal description of the boundary of what is not to be mined. It should be noted that other BLM surface rights are affected by the mine infrastructure, such as roads and the proposed settlement pond. Please address impacts to BLM lands with the proper documentation from the BLM.

Please submit your response no later than May 12, 2011. Failure to do so may result in the Division denying the application. Thank you for your cooperation in meeting these requirements. Questions about this letter can be addressed to me at 801-538-5261 or Leslie Heppler at 801-538-5257.

Sincerely



Paul B. Baker  
Minerals Program Manager

PBB:lah:pb

cc: Keith Moeller keith@cliftonmining.com  
BLM - sallen@blm.gov  
Rob Herbert, DWQ

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## WATER QUALITY STANDARDS

Parameter	milligrams per liter (mg/l) unless noted otherwise and based on analysis of filtered sample except for mercury and organic compounds
PHYSICAL CHARACTERISTICS	
Color (units)	15.0
Corrosivity (characteristic)	noncorrosive
Odor (threshold number)	3.0
pH (units)	6.5-8.5
INORGANIC CHEMICALS	
Bromate	0.01
Chloramine (as Cl <sub>2</sub> )	4
Chlorine (as Cl <sub>2</sub> )	4
Chlorine Dioxide	0.8
Chlorite	1.0
Cyanide (free)	0.2
Fluoride	4.0
Nitrate (as N)	10.0
Nitrite (as N)	1.0
Total Nitrate/Nitrite (as N)	10.0
METALS	
Antimony	0.006
Asbestos (fibers/l and > 10 microns in length)	7.0x10 <sup>6</sup>
Arsenic	0.05
Barium	2.0
Beryllium	0.004
Cadmium	0.005
Chromium	0.1
Copper	1.3
Lead	0.015
Mercury	0.002
Selenium	0.05
Silver	0.1
Thallium	0.002
Zinc	5.0
ORGANIC CHEMICALS	
Pesticides and PCBs	
Alachlor	0.002
Aldicarb	0.003
Aldicarb sulfone	0.002
Aldicarb sulfoxide	0.004
Atrazine	0.003
Carbofuran	0.04



Chlordane	0.002
Dalapon (sodium salt)	0.2
Dibromochloropropane (DBCP)	0.0002
Dichlorophenoxyacetic acid (2,4-D)	0.07
Dinoseb	0.007
Diquat	0.02
Endothall	0.1
Endrin	0.002
Ethylene Dibromide (EDB)	0.00005
Glyphosate	0.7
Heptachlor	0.0004
Heptachlor epoxide	0.0002
Lindane	0.0002
Methoxychlor	0.04
Oxamyl (Vydate)	0.2
Pentachlorophenol	0.001
Picloram	0.5
Polychlorinated Biphenyls	0.0005
Simazine	0.004
Toxaphene	0.003
2, 4, 5-TP (Silvex)	0.05

#### VOLATILE ORGANIC CHEMICALS

Benzene	0.005
Benzo (a) pyrene (PAH)	0.0002
Carbon tetrachloride	0.005
1, 2 - Dichloroethane	0.005
1, 1 - Dichloroethylene	0.007
1, 1, 1-Trichloroethane	0.200
Dichloromethane	0.005
Di (2-ethylhexyl) adipate	0.4
Di (2-ethylhexyl) phthalate	0.006
Dioxin (2,3,7,8-TCDD)	0.00000003
para - Dichlorobenzene	0.075
o-Dichlorobenzene	0.6
cis-1,2 dichloroethylene	0.07
trans-1,2 dichloroethylene	0.1
1,2 Dichloropropane	0.005
Ethylbenzene	0.7
Hexachlorobenzene	0.001
Hexachlorocyclopentadiene	0.05
Monochlorobenzene	0.1
Styrene	0.1
Tetrachloroethylene	0.005
Toluene	1
Trichlorobenzene (1,2,4-)	0.07
Trichloroethane (1,1,1-)	0.2



Trichloroethane (1,1,2-)	0.005
Trichloroethylene	0.005
Vinyl chloride	0.002
Xylenes (Total)	10

#### OTHER ORGANIC CHEMICALS

Five Haloacetic Acids (HAA5)	0.06
(Monochloroacetic acid)	
(Dichloroacetic acid)	
(Trichloroacetic acid)	
(Bromoacetic acid)	
(Dibromoacetic acid)	
Total Trihalomethanes (TTHM)	0.08

#### RADIONUCLIDES

The following are the maximum contaminant levels for Radium-226 and Radium-228, and gross alpha particle radioactivity, beta particle radioactivity, photon radioactivity, and uranium concentration:

Combined Radium-226 and Radium-228	5pCi/l
Gross alpha particle activity, including Radium-226 but excluding Radon and Uranium	15pCi/l
Uranium	0.030 mg/l

#### Beta particle and photon radioactivity

The average annual concentration from man-made radionuclides of beta particle and photon radioactivity from man-made radionuclides shall not produce an annual dose equivalent to the total body or any internal organ greater than four millirem/year. Except for the radionuclides listed below, the concentration of man-made radionuclides causing four millirem total body or organ dose equivalents shall be calculated on the basis of a two liter per day drinking water intake using the 168 hour data listed in "Maximum Permissible Body Burden and Maximum Permissible Concentration Exposure", NBS Handbook 69 as amended August 1962, U.S. Department of Commerce. If two or more radionuclides are present, the sum of their annual dose equivalent to the total body or to any organ shall not exceed four millirem/year. Average annual concentrations assumed to produce a total body or organ dose of four millirem/year:

Radionuclide	Critical Organ	pCi per liter
Tritium	Total Body	20,000
Strontium-90	Bone Marrow	8